

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number  
**WO 2005/038819 A1**

(51) International Patent Classification: **G21C 7/113**  
(21) International Application Number:  
PCT/SE2004/001468

(22) International Filing Date: 13 October 2004 (13.10.2004)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:  
0302707-5 14 October 2003 (14.10.2003) SE

(71) Applicant (for all designated States except US): **WEST-  
INGHOUSE ELECTRIC SWEDEN AB** [SE/SE]; S-721  
63 Västerås (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LUNDÉN, Anders**  
[SE/SE]; Axel Oxenstiernas gata 36, S-724 78 Västerås  
(SE).

(74) Agents: **BERGLUND, Stefan** et al.; Bjerkéns Patentbyrå  
KB, Östermalmsgatan 58, S-114 50 Stockholm (SE).

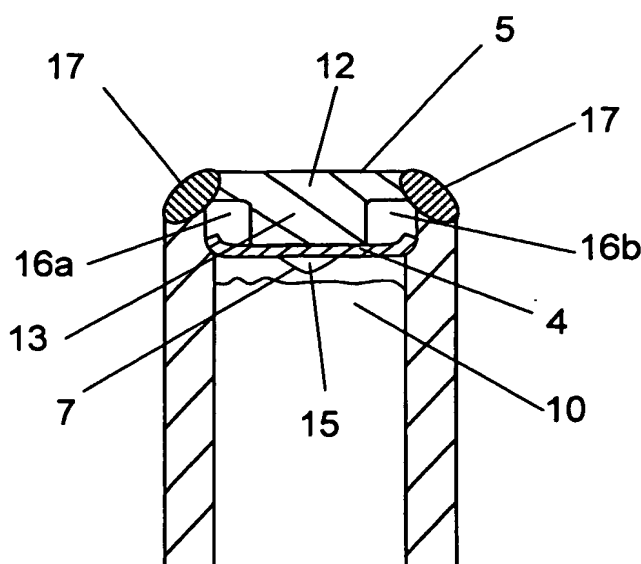
(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: A CONTROL ROD AND A CONTROL ROD BLADE FOR A BOILING WATER REACTOR



(57) Abstract: The present invention relates to a control  
rod blade for a boiling water reactor. The control rod  
blade (2) comprises a plurality of channels (3), which  
are arranged to receive an absorber material (10), a free  
edge portion with a recess (8), which comprises outlets  
for said channels (3), and a cover element (5), which is  
arranged to be attached by means of at least one welding  
operation such that it seals at least a part of said recess  
(8). Furthermore, the control rod blade (2) comprises a  
profile element (4), which, before said welding operation  
of the cover element (5) is performed, is arranged to  
be applied against a bottom surface (6a) in the recess (8)  
in a position such that the profile element (4) covers the  
outlets of said channels (3).

WO 2005/038819 A1